

### **Abstract of the Disclosure**

An example automatic gain control (AGC) ~~Automatic Gain Control~~ system (~~AGC~~) in which an adder adds a radio frequency ~~Radio Frequency~~ (RF) signal power of only the low-frequency component of an ~~[[a]]~~ RF signal and an intermediate-frequency (IF) signal of an output from a variable-gain intermediate-frequency amplifier, which is higher than the frequency of the low-frequency component, and outputs the result to an A/D converter. This construction makes it possible to input power data for the RF stage to a demodulation LSI. The demodulation LSI separates the low-frequency component from the input signal, and by detecting the power of the extracted signal, is able to obtain the output data for the RF signal, and it separates the IF component from the input signal, and by detecting the power of the extracted signal, is able to obtain the output data for the IF signal.